

**NATIONAL SECURITY AGENCY  
CENTRAL SECURITY SERVICE  
FORT MEADE, MARYLAND**



**14 February 2013**

**Evaluated Products List - Degausser**

## EVALUATED PRODUCTS LIST – DEGAUSSER

### INTRODUCTION

1. The EPL (Evaluated Products List)-*Degausser* specifies the current models of commercial equipment that satisfy NSA/CSS requirements for erasure of magnetic storage devices retaining any level of classified or sensitive data. Listing on the EPL-Degausser does not constitute endorsement of the product by the USG or NSA/CSS; it only states that the evaluated degausser has met the applicable NSA/CSS performance requirements. Neither does the listing guarantee continued performance; customers should have their equipment re-tested periodically according to the manufacturer's recommendations.

2. Magnetic storage devices are defined in this document by a magnetic property called *coercivity* in units of Oe (*Oersteds*). Degaussers listed in this document are rated by the coercivity of the magnetic storage devices they can securely erase (tape and disk storage devices). Tape storage devices are defined as any product that contains magnetic tape as the recording medium. Disk storage devices are defined as any product that contains a flexible or rigid disk as the recording medium. The correct use of these degaussers will ensure that any level of classified or sensitive data is irretrievable.

3. There are two categories of disk storage devices: Longitudinal (L) and Perpendicular (P). These names state how data is stored on a disk storage device and each requires different magnetic field configurations to erase them. See chart on page 11 for the years of manufacture and coercivities for the different technologies. *Degaussers capable of erasing the latest technology tape and disk storage devices are colored green.*

4. Degaussers cannot erase optical and solid state storage devices. There are also two products that resemble magnetic hard disk drives but require special consideration. The first is a hybrid magnetic/solid state disk drive containing a magnetic component inside the disk drive housing which can be erased by degaussers and a solid state component on the external circuit board which cannot be erased by degaussers. The second is a solid state disk drive containing solid state storage devices that cannot be erased by degaussers. Hybrid drives were first released in 2006 and solid state drives were first released in 2008.

*NOTE: IN ADDITION TO DEGAUSSING, CERTAIN ADMINISTRATIVE PROCEDURES MAY BE REQUIRED BEFORE DEGAUSSED MAGNETIC STORAGE DEVICES MAY BE DECLASSIFIED. CONSULT YOUR SECURITY OR INFORMATION TECHNOLOGY OFFICER FOR GUIDANCE IN THIS REGARD.*

5. Proper use of this equipment is necessary to prevent inadvertent disclosure of any level of classified or sensitive information. Any questions about equipment operations should be directed to the manufacturer. Questions regarding security requirements should be addressed to your Security or Information Technology Officer.

6. Included in this list is a NSA/CSS evaluated magnetic field verification device used to measure a degausser's magnetic field to verify proper degausser function.

7. Companies wishing to submit a product for evaluation or customers that have queries regarding magnetic storage device erasure and/or degaussers should contact:

National Security Agency  
ATTN: LL43 Center for Storage Device Sanitization Research, Suite 6877  
9800 Savage Road  
Fort George G. Meade, MD 20755-6877  
Voice 301.688.1053, E-mail mtc@nsa.gov

### **ELECTROMAGNETIC DEGAUSSER EQUIPMENT**

8. Tabletop Degaussers: These are electromagnetic tabletop degaussers that provide automatic one pass operation for tape and disk storage device erasure (except where noted). On hard disk drives, all extraneous steel shielding materials (e.g., cabinets, casings, and mounting brackets), but not the hard disk assembly, must be removed before degaussing. The degaussers must be operated at their full magnetic field strength. Erasure of hard disk drives causes damage that prohibits their continued use.

*NOTE: ADAPTORS MAY BE NECESSARY TO ACCOMMODATE THE VARIOUS SIZES OF STORAGE DEVICE PRODUCTS.*

| <b>MANUFACTURER/<br/>DISTRIBUTOR</b>  | <b>MODEL</b>        | <b>TAPE (Oe)</b> | <b>DISK (Oe)</b> |
|---|---------------------|------------------|------------------|
| Data Security, Inc.<br>729 Q Street<br>Lincoln, NE 68508<br>402.434.5959<br>800.225.7554<br><a href="http://www.datasecurityinc.com">www.datasecurityinc.com</a><br>ATTN: Renee Schafer<br><a href="mailto:rschafer@telesis-inc.com">rschafer@telesis-inc.com</a> | Type I, 911-0000    | 350              | Not Tested       |
| Data Security, Inc.   | Type II-A, 930-0000 | 1000             | Not Tested       |
| Data Security, Inc.   | Type III, 943-0001  | 1700             | Not Tested       |
| Data Security, Inc.   | HD-5T               | 2800             | L-5000<br>P-5000 |

| <b>MANUFACTURER/<br/>DISTRIBUTOR</b>   | <b>MODEL</b>   | <b>TAPE (Oe)</b> | <b>DISK (Oe)</b> |
|--|----------------|------------------|------------------|
| Garner Products, Inc.<br>10620 Industrial Avenue, Suite 100<br>Roseville, CA 95678<br>800.624.1903<br>916.784.0200   | 2700           | 350              | Not Tested       |
| Garner Products, Inc.  | CF750          | 750              | Not Tested       |
| Garner Products, Inc.  | TS-1           | 2800             | L-5000<br>P-5000 |
| Martin Yale Industries<br>251 Wedcor Avenue<br>Wabash, IN 46992<br><a href="http://www.intimus.com">www.intimus.com</a><br>ATTN: Greg German<br>260.569.7226<br><a href="mailto:greg.german@martinyale.com">greg.german@martinyale.com</a> | INTIMUS 20 000 | 2800             | L-5000<br>P-5000 |
| VS and Associates<br>3160 Texas Hill Road<br>Placerville, CA 95667<br>530.626.6924<br>ATTN: Linda Schiro<br><a href="mailto:linda.schiro@vssecurityproducts.com">linda.schiro@vssecurityproducts.com</a>                                   | SDD Master     | 2800             | L-5000<br>P-5000 |

**9. Standalone Degaussers:** These are standalone electromagnetic degaussers that provide automatic one pass operation for tape and disk storage device erasure. On hard disk drives, all extraneous steel shielding materials (e.g., cabinets, casings, and mounting brackets), but not the hard disk assembly, must be removed before degaussing. The degaussers must be operated at their full magnetic field strength. Erasure of hard disk drives causes damage that prohibits their continued use.

| <b>MANUFACTURER /<br/>DISTRIBUTOR</b>   | <b>MODEL</b> | <b>TAPE (Oe)</b> | <b>DISK (Oe)</b> |
|---|--------------|------------------|------------------|
| Data Security, Inc.<br>729 Q Street<br>Lincoln, NE 68508<br>402.434.5959<br>800.225.7554<br><a href="http://www.datasecurityinc.com">www.datasecurityinc.com</a><br>ATTN: Renee Schafer<br><a href="mailto:rschafer@telesis-inc.com">rschafer@telesis-inc.com</a> | HD-6600      | 2800             | L-4200           |
| Data Security, Inc.   | HD-1T        | 2800             | L-5000<br>P-5000 |

### **PERMANENT MAGNET DEGAUSSER EQUIPMENT**

10. Hand Degaussers: These are hand held permanent magnet degaussers. To degauss disk storage devices, wipe the degaussing wand onto each side of the disk platter so that the active magnetic portion of the degaussing wand completely covers the recording surface of the disk from hub to perimeter. Wipe at least three times always maintaining physical contact between the degaussing wand and the disk platter. If disks are part of a sealed hard disk drive assembly, they must be removed for degaussing. Erasure of hard disk drives causes damage that prohibits their continued use.

| <b>MANUFACTURER/<br/>DISTRIBUTOR</b>  | <b>MODEL</b> | <b>TAPE (Oe)</b> | <b>DISK (Oe)</b> |
|---|--------------|------------------|------------------|
| Applied Magnetics Laboratory, Inc.<br>1404 Bare Hills Rd.<br>Baltimore, MD 21209<br>410.583.2100  | AML-6KG      | Not Tested       | L-5000<br>P-5000 |
| Proton Engineering, Inc.<br>P.O. 1852<br>Palm City, FL 34991<br>772.223.1685<br>ATTN: William Olliges<br><a href="mailto:proton@bellsouth.net">proton@bellsouth.net</a> | 1100         | Not Tested       | L-5000           |

| <b>MANUFACTURER/<br/>DISTRIBUTOR</b>  | <b>MODEL</b>       | <b>TAPE (Oe)</b> | <b>DISK (Oe)</b> |
|---|--------------------|------------------|------------------|
| Whitaker Brothers Business<br>Machines, Inc.<br>3 Taft Court<br>Rockville, MD 20850<br>800.243.9226<br>301.354.3000<br><a href="http://www.whitakerbrothers.com">www.whitakerbrothers.com</a><br>ATTN: Lauren Rossi<br><a href="mailto:lr@whitakerbrothers.com">lr@whitakerbrothers.com</a> | Datastroyer 102-DG | Not Tested       | L-5000<br>P-5000 |

11. Single Pass Slot Hand Degaussers: These are enclosed permanent magnet degaussers that provide automatic one pass operation for tape and disk storage device erasure. Erasure of hard disk drives causes damage that prohibits their continued use.

| <b>MANUFACTURER /<br/>DISTRIBUTOR</b>   | <b>MODEL</b>            | <b>TAPE (Oe)</b> | <b>DISK (Oe)</b> |
|---|-------------------------|------------------|------------------|
| Applied Magnetics Laboratory, Inc.<br>1404 Bare Hills Rd.<br>Baltimore, MD 21209<br>410.583.2100  | Magnastroyer<br>AML-MS1 | 2150             | L-750            |
| Applied Magnetics Laboratory, Inc.  | Magnastroyer<br>AML-MS2 | Not Tested       | L-5000<br>P-5000 |
| Data Security, Inc.<br>729 Q Street<br>Lincoln, NE 68508<br>402.434.5959<br>800.225.7554<br><a href="http://www.datasecurityinc.com">www.datasecurityinc.com</a><br>ATTN: Renee Schafer<br><a href="mailto:rschafer@telesis-inc.com">rschafer@telesis-inc.com</a> | LE-1                    | Not Tested       | L-5000<br>P-5000 |

|                     |      |      |            |
|---------------------|------|------|------------|
| Data Security, Inc. | TE-1 | 2800 | Not Tested |
|---------------------|------|------|------------|

NOTE: IN THIS DEGAUSSER ERASURE OF TAPE STORAGE DEVICES REQUIRES AN ADDITIONAL STEP FOR SECURE ERASURE; AFTER THE FIRST ERASURE PASS, REMOVE THE TAPE CARTRIDGE, ROTATE THE CARTRIDGE 90 DEGREES, REPLACE IN THE TRAY, AND ERASE A SECOND TIME.

12. Dual Pass Slot Hand Degaussers: These are enclosed permanent magnet degaussers that provide two pass operation for disk storage device erasure. To properly degauss disk storage devices, pass the disk through the entry slot, turn the disk 90 degrees

and slide the disk through the slot again. Erasure of hard disk drives causes damage that prohibits their continued use.

| <b>MANUFACTURER/<br/>DISTRIBUTOR</b>  | <b>MODEL</b> | <b>TAPE (Oe)</b> | <b>DISK (Oe)</b> |
|---|--------------|------------------|------------------|
| Proton Engineering, Inc.<br>P.O. Box 1852<br>Palm City, FL 34991<br>772.223.1685<br>ATTN: William Olliges<br><a href="mailto:proton@bellsouth.net">proton@bellsouth.net</a> | 1090         | Not Tested       | L-750            |

13. Tabletop Degaussers: These are enclosed tabletop permanent magnet degaussers that provide automatic one pass operation for tape and disk storage device erasure. On hard disk drives, all extraneous steel shielding materials (e.g., cabinets, casings, and mounting brackets), but not the hard disk assembly, must be removed before degaussing. Erasure of hard disk drives causes damage that prohibits their continued use.

| <b>MANUFACTURER/<br/>DISTRIBUTOR</b>  | <b>MODEL</b> | <b>TAPE (Oe)</b> | <b>DISK (Oe)</b> |
|---|--------------|------------------|------------------|
| Data Security, Inc.<br>729 Q Street<br>Lincoln, NE 68508<br>402.434.5959<br>800.225.7554<br><a href="http://www.datasecurityinc.com">www.datasecurityinc.com</a><br>ATTN: Renee Schafer<br><a href="mailto:rschafer@telesis-inc.com">rschafer@telesis-inc.com</a> | HPM-1        | 2800             | L-5000<br>P-5000 |
| Data Security, Inc.   | HPM-1A       | 2800             | L-5000<br>P-5000 |
| Data Security, Inc.   | HPM-2        | 2800             | L-5000<br>P-5000 |
| Data Security, Inc.   | HPM-4        | 2800             | L-5000<br>P-5000 |
| Data Security, Inc.   | HPM-4E       | 2800             | L-5000<br>P-5000 |

14. Conveyor Degaussers: These are enclosed permanent magnet degaussers that are continuous duty conveyor belt types and provide one pass erasure for tape and disk storage devices. On hard disk drives, all extraneous steel shielding materials (e.g.,

cabinets, casings, and mounting brackets), but not the hard disk assembly, must be removed before degaussing. Erasure of hard disk drives causes damage that prohibits their continued use.

| <b>MANUFACTURER/<br/>DISTRIBUTOR</b>  | <b>MODEL</b> | <b>TAPE (Oe)</b> | <b>DISK (Oe)</b> |
|---|--------------|------------------|------------------|
| Data Security, Inc.<br>729 Q Street<br>Lincoln, NE 68508<br>402.434.5959<br>800.225.7554<br><a href="http://www.datasecurityinc.com">www.datasecurityinc.com</a><br>ATTN: Renee Schafer<br><a href="mailto:rschafer@telesis-inc.com">rschafer@telesis-inc.com</a> | LM-4         | 2800             | L-5000<br>P-5000 |
| Data Security, Inc.   | LM-4E        | 2800             | L-5000<br>P-5000 |
| Dexter Magnetic Technologies<br>400 Karin Lane<br>Hicksville, NY 11801<br>908.668.4821<br>ATTN: Thomas Devaney  | U5000        | 2800             | L-5000<br>P-5000 |

#### DEGAUSSER MAGNETIC FIELD VERIFICATION DEVICE

| <b>MANUFACTURER</b>   | <b>MODEL</b> |
|---|--------------|
| Data Security, Inc.<br>729 Q Street<br>Lincoln, NE 68508<br>402.434.5959<br>800.225.7554<br><a href="http://www.datasecurityinc.com">www.datasecurityinc.com</a><br>ATTN: Renee Schafer<br><a href="mailto:rschafer@telesis-inc.com">rschafer@telesis-inc.com</a> | Field CheckR |

#### DEGAUSSERS NO LONGER MANUFACTURED

| <b>MANUFACTURER</b>                | <b>MODEL</b> | <b>TAPE (Oe)</b> | <b>DISK (Oe)</b> |
|------------------------------------|--------------|------------------|------------------|
| Ampex Corporation                  | SE20         | 350              | Not Tested       |
| Ampex Corporation                  | SE750        | 750              | Not Tested       |
| Applied Magnetics Laboratory, Inc. | Data Muncher | Not Tested       | L-350            |
| Bell & Howell Company              | TD-2903-4B   | 350              | Not Tested       |

| <b>MANUFACTURER</b>              | <b>MODEL</b>             | <b>TAPE (Oe)</b> | <b>DISK (Oe)</b> |
|----------------------------------|--------------------------|------------------|------------------|
| CMC Technology Corporation       | TD-800                   | 350              | Not Tested       |
| Computer Link Corporation        | CF750                    | 750              | Not Tested       |
| Computer Link Corporation        | 515                      | 350              | Not Tested       |
| Computer Link Corporation        | 520                      | 350              | Not Tested       |
| Computer Link Corporation        | 530                      | 350              | Not Tested       |
| Computer Link Corporation        | 538                      | 350              | Not Tested       |
| Computer Link Corporation        | 540                      | 350              | Not Tested       |
| Consolidated Electrodynamics     | TD-2903-4A               | 350              | Not Tested       |
| Data Devices International       | Cambrian                 | 350              | Not Tested       |
| Data Security, Inc.              | APM-10                   | 2800             | L-5000<br>P-5000 |
| Data Security, Inc.              | Type HD-2000<br>940-0001 | 750              | L-1500           |
| Data Security, Inc.              | Type HD-3000<br>905-0001 | 750              | L-1800           |
| Data Security, Inc.              | HD-6000                  | 2500             | L-3800           |
| Data Security, Inc.              | Type II, 900-0001        | 750              | Not Tested       |
| Data Security, Inc.              | Type II, 902-0001        | 750              | L-1800           |
| Datatape, Incorporated           | HDD-2000                 | 750              | L-1500           |
| Datatape, Incorporated           | TD-1700                  | 1700             | Not Tested       |
| Datatape, Incorporated           | TD-2903-4B               | 350              | Not Tested       |
| Datatape, Incorporated           | TD-350                   | 350              | Not Tested       |
| Datatape, Incorporated           | TD-500                   | 350              | Not Tested       |
| Datatape, Incorporated           | TD-750                   | 750              | L-1800           |
| Datatape, Incorporated           | TD-900                   | 900              | L-1800           |
| Electro-Matic Products Company   | 2PTFB15-17               | 350              | Not Tested       |
| Electro-Matic Products Company   | 2PTFB15-18               | 350              | Not Tested       |
| Electro-Matic Products Company   | 2PTFB15-113              | 350              | Not Tested       |
| Electro-Matic Products Company   | HE15FB-4                 | 750              | Not Tested       |
| Garner Products, Inc.            | REM-1400NSA              | 2800             | L-5000<br>P-5000 |
| General Kinetics Incorporated    | K80                      | 350              | Not Tested       |
| General Kinetics Incorporated    | K90                      | 350              | Not Tested       |
| Hewlett Packard Company          | 3603A                    | 350              | Not Tested       |
| Integra Technologies Corporation | D530                     | 350              | Not Tested       |
| Integra Technologies Corporation | D538                     | 350              | Not Tested       |
| Integra Technologies Corporation | D538-II                  | 750              | Not Tested       |
| Integra Technologies Corporation | D540                     | 350              | Not Tested       |
| Integra Technologies Corporation | I600-F4                  | Not Tested       | L-350            |
| IXI, Incorporated                | 5661C                    | 350              | L-2200           |
| J.C. Nickels, Incorporated       | 1084 Bit Scrubber        | Not Tested       | L-350            |
| KYBE Corporation                 | 1100                     | 350              | Not Tested       |
| Metrum-Datatape                  | HDD-2000                 | 750              | L-1500           |
| Metrum-Datatape                  | TD-1700                  | 1700             | Not Tested       |

| <b>MANUFACTURER</b>                       | <b>MODEL</b> | <b>TAPE (Oe)</b> | <b>DISK (Oe)</b> |
|---|--------------|------------------|------------------|
| Metrum-Datatape                           | TD-350       | 350              | Not Tested       |
| Metrum-Datatape                           | TD-750       | 750              | L-1800           |
| Metrum-Datatape                           | TD-900       | 900              | L-1800           |
| Precision Methods, Incorporated           | 2000         | Not Tested       | L-350            |
| Proton Engineering, Inc.                  | 1084         | Not Tested       | L-350            |
| Red River Computer                        | ME-RRC3      | 2800             | L-5000 P-5000    |
| Red River Computer                        | ME-RRC3M     | 2800             | L-5000 P-5000    |
| Rimage Corporation                        | 5661C        | 350              | L-2200           |
| Security Engineered Machinery/<br>Toshiba | ME-P3        | 2800             | L-5000 P-5000    |
| Security Engineered Machinery/<br>Toshiba | ME-P3R       | 2800             | L-5000 P-5000    |
| Security Engineered Machinery/<br>Toshiba | ME-P3E       | 2800             | L-5000 P-5000    |
| Security Engineered Machinery/<br>Toshiba | ME-P3M       | 2800             | L-5000 P-5000    |

## DEFINITIONS

15. Coercivity – The field strength required to bring the flux density to zero in a magnetic material.

16. Degausser – An electrical device or permanent magnet assembly which generates a magnetic force for the purpose of degaussing magnetic storage devices.

17. Degaussing – Returning the magnetization of a magnetic storage device to a zero state by applying a reverse magnetizing force.

18. Oersted (Oe) – A unit of magnetic field strength.

## COERCIVITIES

| <b>Magnetic Storage Device</b>   | <b>Oe</b> |
|--|-----------|
| 9-Track Reel-to-Reel Computer tape   | 300       |
| TK50, TK70   | 350       |
| 3480, 3490E  | 520       |
| SLR1, SLR2, TR-1, DC2120, DC6150, DC6525   | 550       |
| SLR3, SLR4, SLR5, TR-3, DC9100, DC9120, ID-1, SLR24, SLR32, TR-4, ADR30, ADR50, ADR2-120 | 900       |
| Mammoth 8mm, AIT-1 8mm, VXA-1 8mm  | 1320      |
| M2 Mammoth2 8mm, VXA-2 8mm 230m  | 1350      |
| AIT-2 8mm  | 1380      |
| AIT-3 8mm, AIT-4 8mm, S-AIT-1 ½”   | 1400      |
| Redwood SD-3   | 1515      |

| <b>Magnetic Storage Device</b>   | <b>Oe</b> |
|--|-----------|
| DLTtape III, DLTtape IIIXT   | 1540      |
| DD-2 19mm  | 1550      |
| DTF-1  | 1579      |
| DDS1: 4mm60m, 4mm90m   | 1590      |
| D8: 8mm 112m, 8mm 160m   | 1600      |
| MagstarMP: 3570-B, 3570-C, 3570-C/XL, Magstar: 3590, 3590-E, STK-9840, STK-T9940 | 1625      |
| TR-5, SLR40, SLR50, SLR60, SLR100, TR-7 (Travan 40 GB), SLR75, SLR140            | 1650      |
| DDS2 4mm 120m  | 1750      |
| DLTtape IV, DLTtape VS1, NCTP, DD-2QD (Quad Density) 19mm, LTO-Ultrium1          | 1850      |
| SuperDLTtape1  | 1900      |
| LTO-Ultrium2   | 2150      |
| DDS3 4mm 125m  | 2250      |
| DTF-2  | 2300      |
| DDS4 4mm 150m, DAT-72 4mm 170m   | 2350      |
| Enterprise 3592, STK-T10000 (T10K)   | 2500      |
| Super DLTtape II   | 2600      |
| DLTtape S4, LTO-Ultrium3   | 2650      |
| LTO-4  | 2800      |
| LTO-5  | 2800      |
| 5 ¼" 360KB DD Minidisk   | 300       |
| 3.5" 720KB DD Microdisk, 5 ¼" 1.2MB HD Minidisk                                  | 650       |
| 3.5" 1.44MB HD Microdisk   | 720       |
| SuperDisk 120MB  | 1500      |
| Zip 100 MB Disk  | 1550      |
| Zip 250 MB Disk, Zip 750 MB Disk   | 2250      |

